

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001172**Date Inspected:** 27-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Fabrication**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Orthotropic Box Girder (OBG) and Tower Mock Up:

CWI Inspector: Wu Ming Kai

Bay 1

The QA Inspector performed random visual and dimensional inspections of portions of the OBG deck mockup to ascertain if the closed rib partial penetration welds met the Special Provisions requirements of having a 2 to 5 mm weld reinforcement. The QA Inspector used a bridge cam gage to randomly measure various weld reinforcements and the areas that were measured appear to comply with project specifications. The QA Inspector observed several of the closed rib partial penetration welds have base material undercut at the toe of the welds and portions of welds have unacceptable overlap. Various Caltrans QA personnel had previously marked some of these similar conditions and Caltrans QA Inspector Mr. Alfredo Acuna is compiling the results of the OBG deck mockup visual, dimensional and nondestructive testing inspections. See the photographs below for additional information.

Bay 3

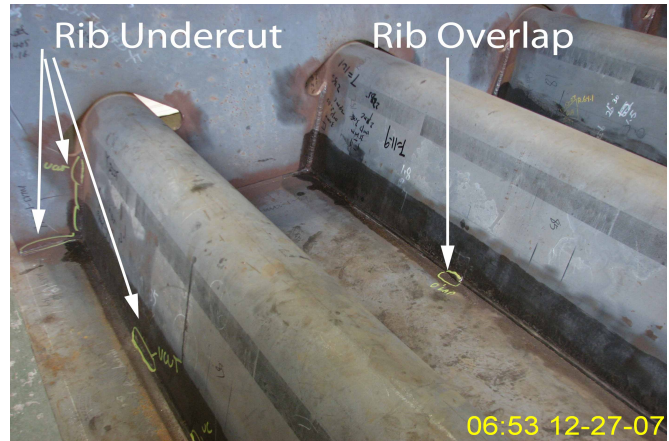
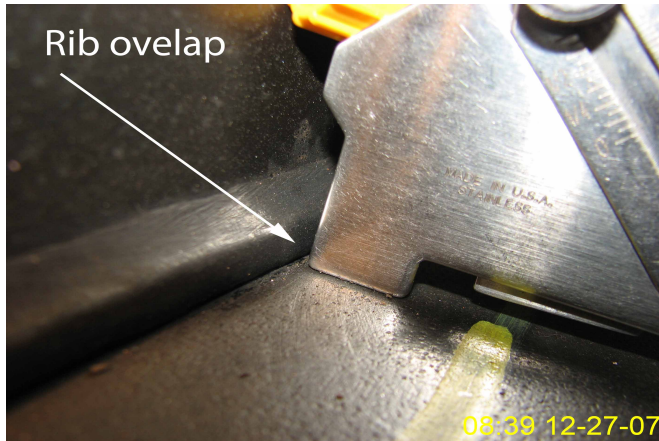
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## WELDING INSPECTION REPORT

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QA Inspector observed ZPMC welder Ms. He Yu Mei stencil 48625 is using welding procedure specification WPS-B-T-2132-2 using the flux cored welding process for fillet tack welds on OBG stiffener welds SP013-01-034 and SP013-01-035. The QA Inspector observed a welding current of approximately 285 amps, 28.8 volts and the base material has a minimum preheat temperature of 100° C. Items observed by the QA Inspector appear to comply with project specifications.



### Summary of Conversations:

See above for summary of conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Cochran,Jim
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QA Reviewer
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